

Appl. No. 09/760,037
 Atty. Docket No. 7914M
 Amdt. dated 01/09/2004
 Reply to Office Action of 09/09/2003
 Customer No. 27752

AMENDMENTS TO THE CLAIMS

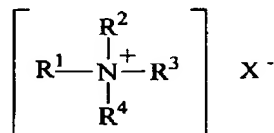
This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1. (Currently Amended) A composition for controlling plant and flower moisture transpiration, said composition comprising:

- a) from about 0.5% by weight, of a source of energy;
- b) from about 0.05 % by weight, of one or more antimicrobials;
- c) from about 0.98% by weight, of a buffer and
- d) the balance carriers and adjunct ingredients

wherein said antimicrobial is selected from the group consisting of 2-methyl-4-isothiazolin-3-one, 5-chloro-2-methyl-4-isothiazolin-3-one, and mixtures thereof;

wherein said antimicrobial has the formula:



wherein R¹ and R² are each independently C₈-C₂₀ linear or branched alkyl, benzyl, and mixtures thereof; R³ and R⁴ are each independently C₁-C₄ alkyl, and mixtures thereof; X is an anion of sufficient charge to provide electronic neutrality; and further wherein said buffer comprises citric acid and sodium citrate.

Claim 2. (Currently Amended) An aqueous composition for controlling plant and flower moisture transpiration, said composition comprising:

- a) from about 0.1% by weight, of a source of energy;
- b) from about 5 ppm by weight, of one or more antimicrobials;
- c) from about 1 ppm by weight, of a buffer; and
- d) the balance carriers and adjunct ingredients

wherein said buffer comprises citric acid and sodium citrate; and further wherein said source of energy comprises a saccharide, oligosaccharide, polysaccharide, or mixtures thereof.

Claim 3. (Canceled)

Appl. No. 09/760,037
Atty. Docket No. 7914M
Amdt. dated 01/09/2004
Reply to Office Action of 09/09/2003
Customer No. 27752

Claim 4. (Currently Amended) A composition according to ~~Claim 3~~Claim 2 wherein said source of energy comprises sucrose, glucose, or mixtures thereof.

Claim 5. (Currently Amended) A composition according to ~~Claim 4~~Claim 2 wherein said source of energy is glucose.

Claim 6. (Currently Amended) A composition according to ~~Claim 3~~Claim 2 wherein said source of energy is an oligosaccharide.

Claim 7. (Original) A composition according to Claim 1 comprising from about 0.5% to about 10% by weight, of a source of energy.

Claim 8. (Original) A composition according to Claim 7 comprising from about 1% by weight, of a source of energy.

Claim 9. (Original) A composition according to Claim 8 comprising to about 5% by weight, of a source of energy.

Claims 10-13. (Canceled)

Claim 14. (Currently Amended) A composition according to ~~Claim 13~~Claim 2 comprising from 10 ppm to about 1000 ppm, citric acid and sodium citrate wherein the ratio of acid to sodium salt is from 20: 3.

Claim 15. (Original) A composition according to Claim 14 comprising 0.016% by weight of a citric acid/sodium citrate buffer system wherein the ratio of acid to sodium salt is 5:2.

Claim 16.(Original) A composition according to Claim 2 having a pH of from about 2 to about 5.

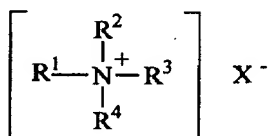
Claim 17. (Original) A composition according to Claim 16 wherein said pH is from about 3 to about 4.

Claim 18. (Original) A composition according to Claim 17 having a pH of about 4.

Appl. No. 09/760,037
 Atty. Docket No. 7914M
 Amdt. dated 01/09/2004
 Reply to Office Action of 09/09/2003
 Customer No. 27752

Claim 19. (Currently amended) An aqueous composition for controlling plant and flower moisture transpiration, said composition comprising:

- a) from about 0.1% by weight, of a source of energy;
- b) from about 1 ppm by weight, of an antimicrobial system, said system comprising:
 - i) from 1% to 99% by weight, of said system, of one or more isothiazolone antimicrobials;
 - ii) from 1% to 99% by weight, of said system, of one or more antimicrobials having the formula:



wherein R¹ and R² are each independently C₈-C₂₀ linear or branched alkyl, benzyl, and mixtures thereof; R³ and R⁴ are each independently C₁-C₄ alkyl, and mixtures thereof; X is an anion of sufficient charge to provide electronic neutrality;

- c) from about 10 ppm by weight, of a buffer; and
- d) the balance carriers and adjunct ingredients;

~~wherein~~ wherein, in at least one antimicrobial, R¹ and R² are each C₁₂ alkyl; or one of R¹ and R² is a mixture of n-alkyl units; or one of R¹ or R² is benzyl; and further wherein said buffer comprises citric acid and sodium citrate.

Claims 20-21. (Canceled)

Claim 22. (Original) A composition according to Claim 19 wherein said antimicrobial is an antimicrobial system comprising:

- i) from 10 ppm to 200 ppm by weight, of didecyl dimethyl ammonium chloride;
- ii) from 10 ppm to 200 ppm by weight, of n-alkyl dimethyl benzyl ammonium chloride wherein n-alkyl comprises an admixture of C₁₂, C₁₄, and C₁₆ linear alkyl chains; and
- iii) from 1 ppm to 100 ppm by weight, of 1,2-benzisothiazolin-3-one.

Appl. No. 09/760,037
Atty. Docket No. 7914M
Amdt. dated 01/09/2004
Reply to Office Action of 09/09/2003
Customer No. 27752

Claim 23. (Original) A composition according to Claim 22 wherein said antimicrobial is an antimicrobial system comprising:

- i) 100 ppm by weight of said composition, of didecyl dimethyl ammonium chloride;
- ii) 100 ppm by weight of said composition, of n-alkyl dimethyl benzyl ammonium chloride wherein n-alkyl comprises an admixture of C₁₂, C₁₄, and C₁₆ linear alkyl chains; and
- iii) 50 ppm by weight of said composition, of 1,2-benzisothiazolin-3-one.

Claim 24. (Original) A system according to Claim 19 further comprising a calcium ion sequestrant.

Claim 25. (Original) A composition according to Claim 19 having a pH of from about 2 to about 5.

Claim 26. (Original) A composition according to Claim 25 wherein said pH is from about 3 to about 4.

Claim 27. (Original) A composition according to Claim 26 having a pH of about 4.

Claim 28. (Original) A composition according to Claim 19 wherein said source of energy comprises a saccharide, oligosaccharide, polysaccharide, or mixtures thereof.

Claim 29. (Original) A composition according to Claim 28 wherein said source of energy comprises sucrose, glucose, or mixtures thereof.

Claim 30. (Original) A composition according to Claim 29 wherein said source of energy is glucose.

Claim 31. (Currently Amended) A non-liquid composition for controlling plant and flower moisture transpiration, said composition comprising:

- a) from about 75% by weight, of a source of energy;
- b) from about 0.05% by weight, of one or more antimicrobials;
- c) from about 0.01% by weight, of a buffer; and
- d) one or more adjunct ingredients

Appl. No. 09/760,037
Atty. Docket No. 7914M
Amdt. dated 01/09/2004
Reply to Office Action of 09/09/2003
Customer No. 27752

wherein said buffer comprises citric acid and sodium citrate
and further wherein said source of energy comprises a saccharide, oligosaccharide,
polysaccharide, or mixtures thereof.

Claim 32. (Original) A composition according to Claim 31 comprising from about 90% by weight, of a source of energy.

Claim 33. (Original) A composition according to Claim 32 comprising from about 95% by weight, of a source of energy.

Claim 34. (Original) A composition according to Claim 33 comprising from about 99% by weight, of a source of energy.

Claim 35. (Original) A composition according to Claim 31 comprising from about 0.01% to about 2% by weight, of an anti-microbial.

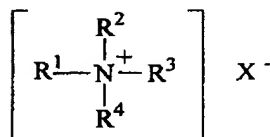
Claim 36. (Original) A composition according to Claim 35 comprising from about 0.05% to about 0.5% by weight, of an anti-microbial.

Claim 37. (Original) A composition according to Claim 36 comprising from about 0.05% to about 0.1% by weight, of an anti-microbial.

Claim 38. (Currently Amended) A granular composition for dilution by a carrier, said composition for controlling plant and flower moisture transpiration, said composition comprising:

- a) from about 75% by weight, of a source of energy;
- b) from about 0.01% by weight, of an antimicrobial system, said system comprising:
 - i) from 1% to 99% by weight, of said system, of one or more isothiazolone antimicrobials;
 - ii) from 1% to 99% by weight, of said system, of one or more antimicrobials having the formula:

Appl. No. 09/760,037
 Atty. Docket No. 7914M
 Amdt. dated 01/09/2004
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 Customer No. 27752



wherein R^1 and R^2 are each independently C_8 - C_{20} linear or branched alkyl, benzyl, and mixtures thereof; R^3 and R^4 are each independently C_1 - C_4 alkyl, and mixtures thereof; X is an anion of sufficient charge to provide electronic neutrality;

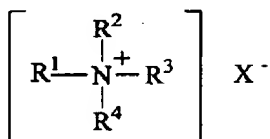
- c) from about 0.98% by weight, of a buffer; and
- d) the balance adjunct ingredients

wherein said buffer comprises citric acid and sodium citrate.

Claims 39-40 (Cancelled)

Claim 41. (Currently Amended) A method for enhancing the longevity of cut flowers comprising the step of contacting the cut ends of said cut flowers with a vase additive solution, said solution comprising:

- a) from about 75% by weight, of a source of energy;
- b) from about 0.01% by weight, of an antimicrobial system, said system comprising:
 - i) from 1% to 99% by weight, of said system, of one or more isothiazolone antimicrobials;
 - ii) from 1% to 99% by weight, of said system, of one or more antimicrobials having the formula:



wherein R^1 and R^2 are each independently C_8 - C_{20} linear or branched alkyl, benzyl, and mixtures thereof; R^3 and R^4 are each independently C_1 - C_4 alkyl, and mixtures thereof; X is an anion of sufficient charge to provide electronic neutrality;

- c) from about 0.98% by weight, of a buffer; and
- d) the balance adjunct ingredients

Appl. No. 09/760,037
Atty. Docket No. 7914M
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Customer No. 27752

wherein said buffer comprises citric acid and sodium citrate.